

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019309**Date Inspected:** 14-Jan-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island**Location:** Shanghai, China**CWI Name:** Mr. Qui Wen**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Segment**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Magnetic Particle Testing (MT) – NWIT Document No's: 008165

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Segment. The weld designations reviewed are as follows:

1. BP3036-001-025~036
2. BP3038-001-025~036
3. BP3044-001-001~012

Bay 14

This QA Inspector observed the following work in progress:

Shielded Metal Arc Welding (SMAW) repair welding of weld joint SEG3013AA-103 and 106 located on Edge Plate to Side Plate of OBG Segment 13AW. ZPMC Welder is identified as 066261. ZPMC Quality Control (QC) is identified as Mr. Li Ming Yang. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-2G (2F) – FCM – Repair-1, which is used as per Welding Repair Report (WRR)

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B-WRR-20130.

SMAW repair welding of weld joint SEG3013AA-051 and 052 located on Edge Plate to Side Plate of OBG Segment 13AW. ZPMC Welder is identified as 066163. ZPMC Quality Control (QC) is identified as Mr. Li Ming Yang. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-2G (2F) – FCM – Repair-1, which is used as per Welding Repair Report (WRR) B-WRR-20131.

SMAW repair welding of weld joint SEG3013AA-063 and 064 located on Edge Plate to Side Plate of OBG Segment 13AW. ZPMC Welder is identified as 066481. ZPMC Quality Control (QC) is identified as Mr. Li Ming Yang. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-2G (2F) – FCM – Repair-1, which is used as per Welding Repair Report (WRR) B-WRR-20131.

Flux Core Arc Welding (FCAW) welding of weld joint SEG3012AH-082 located on K-Plate to Side Plate of OBG Segment 13AW. ZPMC Welder is identified as 066263. ZPMC Quality Control (QC) is identified as Mr. Li Ming Yang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2232-ESAB.

SMAW welding of weld joint SEG3020D-052 and 056 located on Floor Beam to Bottom Plate joint of OBG Segment 14W. ZPMC Welder is identified as 067520. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-2G (2F) – FCM – Repair, which is used as per Critical Welding Repair Report (CWR) B-CWR-2734.

FCAW welding of weld joint SEG3020V-073 and 048 located on Longitudinal Diaphragm to Floor Beam of the OBG Segment 14W. ZPMC Welder is identified as 045175. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS- B-T-2233-ESAB.

FCAW welding of weld joint SEG3020V-061, 062, 065 and 066 located on Longitudinal Diaphragm to Floor Beam of the OBG Segment 14W. ZPMC Welders are identified as 066695 and 067949. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS- B-T-2132-ESAB.

FCAW welding of weld joint SEG3020BB-064, 088, 071, 089, 080 and 090 located on Vertical Shear Plate to Floor Beam of the OBG Segment 14W. ZPMC Welder is identified as 066695. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS- B-T-2132-ESAB.

FCAW welding of weld joint SEG3020BB-036, 045, 094 095 and 096 located on Vertical Shear Plate to Floor Beam of the OBG Segment 14W. ZPMC Welder is identified as 067949. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS- B-T-2132-ESAB.

SMAW welding of weld joint SEG3020AL-027 and 028 located on Floor Beam(FL3) to Side Plate joint of OBG Segment 14W. ZPMC Welder is identified as 066038. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS- B- P- 2214-Tc-U4b-FCM-1.

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This QA inspector observed ABF personnel performed Magnetic Particle Testing on Floor beam and Longitudinal Diaphragm Stiffeners of the OBG Segment 13BW at panel point 123.5 and 124 north side.

ZPMC personnel performing heat straightening on Longitudinal Diaphragm Stiffener of OBG Segment 13CW member identified as LD3033. Distortion appeared to be caused by misalignment stiffener of the welding/material. ZPMC Quality Control (QC) inspector identified as Mr. Li Ming Yang was present to monitor the heat straightening process. The heat straightening appeared to comply with HSR1 (B) number 10075. See the attached picture.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



### Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Kumar,Vibin	Quality Assurance Inspector
<b>Reviewed By:</b>	Patel,Hiranch	QA Reviewer

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